

## CLIMATOLOGICAL DATA FOR JANUARY, 1911.

## DISTRICT No. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Forecaster.

## GENERAL SUMMARY.

The temperature conditions during January were much milder than the average, despite the severe and extensive cold snap that set in at the beginning of the month and lasted almost to the end of the first decade. The fall in temperature was gradual, not abrupt, as was the case on the east and opposite side of the Continental Divide, where it was first felt. The spreading of cold air from the eastern to the western slope does not occur very often, for most cold waves are too shallow to cross even the lower passes in the mountains. As invariably happens in such cases, there was a settling or slow movement of the cold from high to low elevations. The last two decades were unusually mild, except on the 22d and 23d in the mountain region of the northern part of the district, and rather unsettled, with an excess of cloudiness. Practically all the precipitation of the month occurred during this period, much of it being in the form of rain at high elevations. Precipitation was general on the 10th and 11th; another wet period, but more limited in area, was from the 15th to 17th. On the 21st precipitation was general, while in Arizona and New Mexico it continued until the 25th, when the area with precipitation shifted to the northern part of the district. Heavy precipitation in northern and central Arizona on the 10th and 11th caused a moderate freshet in the Salt, Verde, and Gila Rivers, delaying traffic for a few days. Water for irrigation is now plentiful in Arizona. In southwestern New Mexico the drought has been relieved, but the outlook for irrigation water has not been improved.

## TEMPERATURE.

The mean of the 135 stations reporting temperature was  $38.5^{\circ}$ , or  $4.5^{\circ}$  above the normal. By subdivisions the means and departures were: Western Wyoming,  $16.8^{\circ}$ ,  $+2.3^{\circ}$ ; western Colorado,  $25.5^{\circ}$ ,  $+6.3^{\circ}$ ; eastern Utah,  $31.2^{\circ}$ ,  $+7^{\circ}$ ; western New Mexico,  $39^{\circ}$ ,  $+5.3^{\circ}$ ; Arizona,  $48.2^{\circ}$ ,  $+3.2^{\circ}$ ; and southeastern Nevada,  $42.9^{\circ}$ . The highest monthly mean was  $57.4^{\circ}$ , at Silverbell, Ariz., and the lowest,  $11.2^{\circ}$ , at Corona, Colo.

Temperatures were below the normal throughout the district during the first four days, and in the central and northern parts until the 8th. From the 9th to the end of the month temperatures were above the normal in parts of the district. The excess was marked, especially in northern Arizona, eastern Utah, and western Colorado, the daily mean in these localities being generally more than  $15^{\circ}$  higher than the normal. By subdivisions the temperature extremes were: Western Wyoming,  $51^{\circ}$  and  $-33^{\circ}$ ; western Colorado,  $62^{\circ}$  and  $-37^{\circ}$ ; eastern Utah,  $72^{\circ}$  and  $-22^{\circ}$ ; western New Mexico,  $80^{\circ}$  and  $-33^{\circ}$ ;

Arizona,  $84^{\circ}$  and  $-16^{\circ}$ ; and southeastern Nevada,  $77^{\circ}$  and  $9^{\circ}$ .

## PRECIPITATION.

The average precipitation for the 183 stations reporting was 1.89 inch, or 0.70 inch above the normal. By watersheds the means and departures were: Green, 1.63,  $+0.56$ ; Grand, 2.02,  $+0.37$ ; San Juan, 2.78,  $+0.98$ ; Little Colorado, 1.27,  $+0.65$ ; Gila, 1.91,  $+0.87$ ; Mimbres, 1.24,  $+0.39$ ; and Colorado proper, 1.86,  $+0.58$  inch. The greatest monthly amount reported was 10.85 inches, at Ranch, Utah, and the least, 0.04 inch, at Hanksville, Utah.

The greatest monthly snowfall in each subdivision was: Wyoming, 5.8 inches; Colorado, 74.8 inches; Utah, 50 inches; New Mexico, 1.2 inch; Arizona, 4 inches. The average number of days with 0.01 inch or more of precipitation was 6.

## MISCELLANEOUS.

The percentage of sunshine was much below the normal. Grand Junction reported 33, or 24 per cent below the normal; Durango 58, Flagstaff 57, Phoenix 61, and Yuma 64 per cent of the possible.

The mean relative humidity was higher than the normal. The values reported were: Grand Junction 77, Durango 74, Flagstaff 79, Phoenix 68, and Yuma 53 per cent.

## EXTRACTS FROM SECTION SNOWFALL BULLETINS.

*Western Wyoming.*—There is less snow than usual at the headwaters of the Green River. An average is reported from the Newfork district, but there is a decided deficiency in the Big Sandy district.

*Western Colorado.*—During January weather conditions were more favorable for the streams of the western than for the streams of the eastern slope. Over the greater part of the drainage area of the Yampa, White, Grand, Gunnison, and San Juan the precipitation during the month was in excess of the normal for January. For the Grand and Gunnison, each 25 inches on an average, the depth is about the same as a year ago, while for the Yampa and White there is a deficiency of 12 inches, and for the San Juan a deficiency of 10 inches.

Considerable drifting occurred. Although some very low temperatures were noted, high day temperatures were a feature, facilitating the settling of the snow. Rain, an unusual thing in Colorado in January even at low altitudes, was reported from a number of high-level stations.

*Eastern Utah.*—As a rule there was less snow on the watersheds of the Green and the Colorado than a year ago, and less than the average amount.

*Western New Mexico.*—Heavy rains fell over the upper watershed of the San Juan, melting the snow from the lower levels and causing high water. The lower reaches of the stream were without snowfall. Snow was generally lacking over the Gila, San Francisco, and Mimbres watersheds.

*Arizona.*—The snowfall during January was greatly deficient. The warm rains of the 10th and 11th caused a rapid melting of the snow covering between the 7,500 and 8,500 foot altitudes. Unless heavy snows fall by March 20, there will be a shortage of water during the summer months.

TABLE 1.—Climatological data for January, 1911. District No. 9, Colorado Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.				Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Greatest in 24 hours.	Departure from the normal.	Total snowfall, unmeasured.	Number of rainy days, .01 inch or more.	Number of partly cloudy days.	Number of cloudy days.			
<i>Wyoming.</i>																				
Daniel.	Uinta.	6,740	12	2	15.7	46	9	-33	23	50	1.12	0.45	6	9	10	12	w.	J. M. Van Dervort.		
Eden.	Sweetwater.	6,577	2	21.6	+ 2.3	51	31	-30	23	40	0.24	-0.21	0.09	5.0	5	11	8	12	Eden Val. L. I. Co.	
Green River.	do.	6,083	6	21.6	+ 2.3	39	13	-33	2	44	0.82	0.20	5.8	6	11	9	11	Geo. W. Maxom.		
Pinedale.	Fremont.	7,167	5	13.0															Forest Supervisor.	
<i>Colorado.</i>																				
Ashcroft.	Pitkin.	9,483	8	20.7		47	30	-23	3	38	1.86	0.40	30.5	14	2	16	9	6	Dan McArthur.	
Bed Rock.	Montrose.	9,536	22	17.7	+ 1.9	43	24†	-22	22	45	1.39	-0.36	0.45	22.0	6	1 <sup>c</sup>	11 <sup>c</sup>	16 <sup>c</sup>	W. B. Weybright.	
Breckenridge.	Summit.	6,175	13	30.8	+ 4.0	56	30	-12	3	29	0.44	-0.39	0.18	0.72	15.0	8	15	10	Mrs. J. G. Thompson.	
Bufoord.	Rio Blanca.	7,500	5	25.8		53	29	-35	2	55	0.47		0.12	3.5	5	15 <sup>a</sup>	6 <sup>a</sup>	9 <sup>a</sup>	Mrs. H. Genier.	
Cascade.	San Juan.	8,900	4																San Juan W. & P. Co.	
Cedaredge.	Delta.	6,175	13	30.8	+ 4.0	56	30	-12	3	29	0.44	-0.39	0.18	1.17	53.0	8	13	9	Harry A. Cobbett.	
Chromo.	Archuleta.	7,500	5	25.8		53	29	-35	2	55	0.47		0.12	3.5	5	15 <sup>a</sup>	6 <sup>a</sup>	9 <sup>a</sup>	Lawrence Nolan.	
Cochetopa.	Saguache.	9,088	2																Bessie McDonough.	
Colbran.	Mesa.	6,000	18	29.4	+ 5.9	54	30†	-9	3	37	1.64	+ 0.51	1.10	12.5	6	8	9	14	A. A. Wood.	
Columbine.	Routt.	8,766	1																Mrs. M. A. Caron.	
Columbine Ranch.	Delta.	6,925	1																Geo. W. Wade.	
Corona.	Grand.	11,660	4	11.2		29	30	-30	3	28	3.52		1.08	42.0	11				U. S. Weather Bureau.	
Craig.	Routt.																		C. S. Merrill.	
Crawford (near).	Montrose.	6,600	1	29.6		53	30	-13	3	36	0.79		0.34	1.0	10	17	5	9	C. W. Roe.	
Crested Butte.	Gunnison.	8,867	1	17.8		50	30	-25	2	43	5.98		1.05	57.0	13	12	6	13	Charles L. Ross.	
De Beque.	Mesa.	4,935	1	29.9		53	12†	-10	2†	39	1.66		0.50	5	11	3	17		C. M. Paine.	
Delta.	Delta.	4,965	21	32.3	+ 7.3	61	30	-22	3	40	1.18	+ 0.63	0.55	1.0	6	7	9	15	E. M. Getts.	
Dillon.	Summit.	8,800	1	20.6		57	30	-29	23	62	2.26		0.76	26.0	5	14	7	10	Harry T. Hamilton.	
Dolores.	Montezuma.	6,445	2	33.0		57	30	-13	2	40	2.40		0.70	T.	8	4	19	Wm. C. Syrett.		
Durango.	La Plata.	6,534	16	30.5	+ 6.0	58	30	-10	3	36	3.48	+ 2.20	1.20	5.2	14	8	11	12	U. S. Weather Bureau.	
Eagle.	Eagle.	6,598	7	25.0		48	13	-23	23	47	1.69		0.60	16.5	7	15	8	9	J. M. Witterman.	
Eureka.	San Juan.	10,000	4																San Juan W. & P. Co.	
Fraser.	Grand.	8,560	2	14.3		47	30	-36	23	73	1.36		1.40	35.0	9	12	0	19	L. D. C. Gaskill.	
Fruita.	Mesa.	4,510	12	28.5	+ 5.9	57	30	-15	4	41	1.60	+ 0.82	0.65	T.	8	8	13	10	J. B. Willsea.	
Gladstone.	San Juan.	10,400	4																San Juan W. & P. Co.	
Glenwood Springs (near).	Garfield.	5,823	13	29.3	+ 6.5	60	31	-9	2	48	1.50	+ 0.30	0.65	15.0	9	12	3	16	E. A. O'Neil.	
Grand Junction.	Mesa.	4,608	20	31.6	+ 6.9	62	31	-8	4	45	0.48	-0.01	0.20	0.5	5	5	10	16	U. S. Weather Bureau.	
Grandlake.	Grand.	8,153	3																Mrs. Belle Kauffman.	
Grand Valley.	Garfield.	5,089	19	31.0	+ 6.5	56	31	-7	4	41	2.20	+ 1.27	0.85	0.2	12	6	6	11	David Evans.	
Gunnison.	Gunnison.	7,670	18	13.8	+ 6.3	45	16	-31	2	45	0.98	+ 0.19	0.32	15.0	6	16	7	8	Clarence Adams.	
Horsefly.	Montrose.	8,700	1																Lawrence F. Finch.	
Ironton.	Ouray.	10,000	1																P. H. Foley.	
Lodore.	Routt.																		E. Bassett.	
Lake City.	Hinsdale.	8,686	6	21.4		53	30	-17	3	44	0.95		0.34	11.0	7	13	8	10	J. F. Maurer.	
Lay.	Routt.	6,190	17	23.6	+ 5.3	51†	31	-27*	22	56*	2.02	+ 1.07	1.20	21.0	5	9	2	20	A. G. Wallihan.	
Leal.	Grand.	8,750	1																L. J. Wade.	
Mancos.	Montezuma.	6,960	12	30.4	+ 3.1	56	31	-22	2	40	2.81	+ 1.57	0.52	2.3	11	14	8	9	B. M. Krumpanitzky.	
Marble.	Gunnison.	7,951	2	28.1		52	30	-17	3	45	5.53		1.15	24.9	14	9	5	17	Horner Harrington.	
Marshall Pass.	Saguache.	10,846	8																Wm. D. Lillard.	
Meeker (near).	Rio Blanca.	6,182	19	28.7	+ 8.1	55	30	-20	3	40	1.45	+ 0.44	0.55	12.0	7	7	11	13	T. Baker.	
Montrose.	Pitkin.	5,811	22	32.2	+ 8.1	62	30†	-17	3	40	0.41	-0.27	0.27	1.5	6	15	7	9	U. S. Reclamation Service.	
Nast.	Pagoda.	7,953	1	22.6		46	19†	0	9†	46	2.59		0.69	27.7	7	14	3	14	Arthur Hanthorne.	
Pagoda.	Archuleta.	6,500	20																Shaw Bros.	
Pagosa Springs.	Delta.	7,108	4	23.6		52	30	-37	2	54	2.99		0.60	8.0	11	11	7	13	E. T. Walker.	
Paonia.	Garfield.	5,694	16	30.6		58	30	-12	3	39	2.35	+ 1.31	0.56	4.0	11	7	15	J. M. Underwood.		
Parshall.	Grand.																	F. A. Field.		
Pitkin.	Gunnison.	9,500	2															Mrs. Maggie Camman.		
Pyramid.	Rio Blanca.	27.4				49	30	-16	2	52	2.39		0.85	18.0	6	5	12	14	C. E. Egry.	
Rangely.	do.	5,050	12	27.0	+ 13.0	54	31	-14	3†	46	1.80	+ 1.28	0.43	13.3	7	6	7	18	Mrs. C. P. Hill.	
Redcliffe.	Eagle.	8,605	18															Dorothea Greiner.		
Rico.	Dolores.	8,824	9															Clinton B. Smith.		
Rifle.	Garfield.	5,437																Horace Mann.		
River Portal.	Montrose.	6,570	5	26.8		52	29†	-15	2	35	1.43		0.74	8.0	3	13 <sup>b</sup>	4 <sup>b</sup>	12 <sup>b</sup>	U. S. Reclamation Service	
Sapinero (near).	Gunnison.	8,125	8	20.4		49	30	-20	3	33	2.15		0.45	21.4	12	10	6	15	W. F. Irving.	
Shoshone.	Garfield.	6,110	1															Central Colo. Power Co.		
Silverton (near).	San Juan.	9,400	4	23.0		62	10	-17	3	72	3.38		0.91	35.3	8	6	10	15	San Juan W. & P. Co.	
Spruce Lodge.	Grand.	9,600	3															H. J. Wills.		
Steamboat Springs.	Routt.	6,683	8	23.6		50	31	-33 <sup>b</sup>	23	53 <sup>b</sup>	3.26		0.72	32.2	11	19	4	8	M. Elliott Houston.	
Tacoma.	La Plata.	7,300	4															San Juan W. & P. Co.		
Terminal Dam.	do.	8,300	4															Do.		
Terrell's ranch.	Mesa.	7,000	1															A. F. Terrill.		
Uncompahgre Plateau.	Montrose.	8,400	1															Martin Esser.		
Yampa (near).	Routt.	8,000	2															Percy A. Hughes.		
<i>Utah.</i>																				
Aneth.	San Juan.	4,800	8	37.6		63	30	0	2	35	0.51		0.15	0.0	5	11	13	7	se.	
Castle Dale.	Emery.	5,500	12	25.4	+ 3.0	47	22	-10	1†	42†	1.73	+ 1.25	0.65	6	9	12 <sup>c</sup>	7		James Jeffs.	
Elkhorn.	Uinta.	6,657	1															Forest Supervisor.		
Emery.	Emery.	6,200	10	31.9	+ 6.0	56	11†	-2	2	47	0.70	+ 0.27	0.30	4.0	3	0	2	29	H. C. Wickman.	
Escalante.	Garfield.	5,700	10	31.9	+ 5.5	60	29	-4	3	34	1.58	+ 0.01	0.90	7	14	0	17	Geo. H. Barney.		
Fort Duchesne.	Uinta.	5,000	21	27.0	+ 15.2	59	11	-11	3†	59	0.31	-0.07	0.12	1.0	4	19	1	11	Post surgeon.	
Fruitland.	Wasatch.																			

TABLE 1.—*Climatological data for January, 1911. District No. 9—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of clear days.	Number of partly cloudy days.	Number of rainy days, 1/10 inch or more.			
<i>New Mexico.</i>																				
Alma.	Socorro.	5,500	15	42.5	+ 4.3	74	30	2	3	51	2.23	+ 1.24	0.55	0.0	7	9	16	s.	Max A. Balke.	
Aragon.	do.	5,856	4	35.6	- 65	29†	- 7	2	53	1.10	- 0.50	- 0.50	- 0.54	- 0.5	10	12	19	sw.	John R. Milligan.	
Aztec.	San Juan.	5,500	3	37.0	- 63	28	- 4	2	44	1.53	- 1.02	- 1.02	- 0.68	- 0.7	10	7	14	sw.	Dr. T. J. West.	
Blackrock.	McKinley.	6,500	3	33.6	+ 5.0	58	27	- 8	2	39	0.47	- 0.03	0.27	T.	3	14	9	sw.	R. J. Bauman.	
Bloomfield.	San Juan.	5,500	16	33.6	+ 5.0	58	27	- 8	2	39	0.47	- 0.03	0.27	T.	3	14	9	sw.	Fred Le Clerc.	
Cambray.	Luna.	4,215	12	4.470	- 12	2	-	-	-	-	0.80	+ 0.34	0.40	0.0	3	16	7	w.	Agent So. Pac. R. R.	
Cliff.	Grant.	4,470	12	4.054	- 2	77	30	2	3	39	0.65	- 0.41	0.0	3	15	6	10	sw.	W. C. Belden.	
Columbus.	Luna.	4,054	2	4.333	- 34	43.3	- 74	19†	2	3	49	0.77	+ 0.24	0.40	0.0	3	10	10	w.	Agent E. P. & SW. R. R.
Deming.	do.	4,756	4	25.4	+ 4.7	55	30†	- 33	2	45	2.27	+ 0.98	1.00	1.2	10	16	7	w.	Agent So. Pac. R. R.	
Dulce.	Rio Arriba.	6,756	4	44.7	+ 5.9	72	30	4	3	38	1.55	+ 0.71	0.60	0.0	4	24	7	nw.	G. H. Blakeslee.	
Fort Bayard.	Grant.	6,153	36	47.9	+ 8.5	68	21	- 8	3	53	1.10	+ 0.13	0.40	1.0	7	10	4	17	U. S. General Hospital.	
Fort Wingate.	McKinley.	6,997	16	48.0	- 64	64	31	5	3	42	0.48	+ 0.18	0.30	T.	4	10	9	12	Medical Corps, U. S. A.	
Fruitland.	San Juan.	4,800	18	35.6	+ 5.0	68	30	3	3	42	0.65	- 0.31	0.0	3	19	5	6	Cyril J. Colyer.		
Gage.	Luna.	4,486	4	46.0	- 80	31	0	2	43	1.06	+ 0.70	0.56	0.0	3	20	5	w.	Agent So. Pac. R. R.		
Gila Planting Station.	Grant.	6,475	2	42.4	- 68	30	3	3	42	1.94	- 0.93	0.0	3	19	5	7	U. S. Forest Service.			
Hachita.	do.	4,504	2	6,600	1	-	-	-	-	-	-	-	-	3	16	7	8	Agent E. P. & SW. R. R.		
Haynes.	Rio Arriba.	4,451	2	-	-	-	-	-	-	-	-	-	-	26	3	2	w.	Dr. John R. Haynes.		
Hermanes.	Luna.	4,245	11	46.4	+ 3.4	79	28	6	3	49	0.64	- 0.01	0.46	0.0	4	15	10	6	Agent E. P. & SW. R. R.	
Lordsburg.	Grant.	7,300	6	34.8	- 61	30	- 5	3	53	1.32	- 0.65	1.0	0.5	0	5	19	7	sw.	Agent So. Pac. R. R.	
Mimbres.	Grant.	5,007	6	-	-	-	-	-	-	-	-	-	-	15	10	6	w.	C. B. Martin.		
Pratt.	do.	4,415	2	-	-	-	-	-	-	-	-	-	-	4	21	4	5	Chas. Dennis.		
Putnam.	San Juan.	6,200	1	-	-	-	-	-	-	-	-	-	-	6	10	5	w.	Agent E. P. & SW. R. R.		
Redrock.	Grant.	4,150	6	-	-	-	-	-	-	-	-	-	-	5	16	13	2	D. Lee Thompson.		
Rodeo.	do.	4,118	2	-	-	-	-	-	-	-	-	-	-	10	-	-	-	Robt. H. Wood.		
<i>Arizona.</i>																				
Allaire's ranch.	Cochise.	4,184	15	55.6	+ 1.1	80	24	24	3	44	0.96	+ 0.13	0.29	0.0	7	18	4	9	Thos. Allaire.	
Aztec.	Yuma.	492	13	55.6	+ 1.1	80	24	24	3	44	0.70	+ 0.34	0.70	0.0	1	10	14	7	Agent S. P. Co.	
Benson.	Cochise.	3,523	29	51.3	+ 3.7	81	30	11	3	53	0.77	+ 0.23	0.52	0.0	4	22	3	6	Do.	
Bisbee.	do.	5,500	21	49.3	+ 3.4	72	30	17	3	34	1.42	+ 0.31	0.62	0.0	4	15	10	6	Rev. J. G. Pritchard.	
Bonita.	Graves.	4,916	2	-	-	-	-	-	-	-	-	-	-	-	6	10	5	w.	W. E. Ross.	
Bowie.	Cochise.	3,756	34	40.4	- 2.8	72	10	10	3†	45	1.57	+ 0.48	0.72	0.0	3	8	17	6	Agent S. P. Co.	
Buckeye.	Maricopa.	950	18	55.6	+ 2.3	76	6†	20	1†	51	1.44	+ 0.51	1.10	0.0	2	16	10	5	H. E. Kell.	
Camp Verde.	Yavapai.	3,160	2	-	-	-	-	-	-	-	-	-	-	-	5	10	5	w.	T. B. Gabbard.	
Canfield.	Santa Cruz.	5,225	2	-	-	-	-	-	-	-	-	-	-	-	10	12	10	sw.	R. A. Rodgers.	
Casa Grande.	Pinal.	1,396	29	54.8	+ 3.1	80	29†	28	2†	36	1.32	+ 0.49	0.92	0.0	2	11	14	6	Agent S. P. Co.	
Casa Grande Ruins.	do.	1,422	3	54.4	-	80	31	20	1†	49	2.22	-	0.88	0.0	8	12	9	10	F. Pinkley.	
Cave Creek.	Maricopa.	1,520	4	52.0	-	75	29†	20	3	48	2.97	-	1.50	0.0	4	7	18	6	E. A. Howard.	
Chair Lee.	Apache.	6,090	3	36.1	-	65	30	- 10	3	44	0.48	-	0.25	0.0	6	9	6	16	Fr. L. Ostermann, O. F. M.	
Chlason's Mill.	Graham.	8,000	4	39.5	-	63	30	8	3	36	4.55	-	1.17	1.1	7	9	12	10	H. R. Chlason.	
Clifton.	Greenlee.	3,584	20	49.1	-	70	30	20	4	30	1.60	+ 0.48	0.42	0.0	8	22	4	5	P. Reisinger.	
Cline.	Gila.	2,300	-	-	-	-	-	-	-	-	-	-	-	-	12	12	10	w.	W. M. Clanton.	
Cochise.	Cochise.	4,219	12	46.4	+ 1.0	78	31	9	3	45	0.35	- 0.31	0.25	0.0	3	20	4	7	Agent S. P. Co.	
Columbia.	Yavapai.	1,900	12	56.4	+ 3.9	78	30	27	3	33	4.26	+ 2.43	2.00	0.0	5	12	7	12	M. J. Nolan.	
Congress.	do.	3,688	15	51.8	+ 1.1	73	30	26	3	29	2.32	- 0.79	1.30	0.0	8	9	16	6	Assayer Congress Mine.	
Courtland.	Cochise.	4,543	2	-	-	-	-	-	-	-	-	-	-	-	3	3	20	8	Agent E. P. & SW. Co.	
Dos Cabezos.	do.	5,250	3	45.0	-	74	29	11	2	40	2.97	-	1.96	0.0	6	23	6	2	N. Erickson.	
Douglas.	do.	3,930	8	50.4	-	82	30	8	4	56	0.98	-	0.54	0.0	4	21	5	5	Dr. F. F. Wright.	
Dudleyville.	Pinal.	2,204	20	52.4	+ 4.9	80	31	14	3	46	1.43	+ 0.07	0.96	0.0	6	10	8	13	G. F. Cook.	
Fairbank.	Cochise.	3,862	2	-	-	-	-	-	-	-	-	-	-	5	16	9	6	Agent E. P. & SW. Co.		
Flagstaff (1).	Coconino.	6,907	19	33.4	+ 6.7	57	30	- 1	3	42	4.04	+ 1.98	0.42	0.0	12	9	7	15	U. S. Weather Bureau.	
Flagstaff (2).	do.	7,452	2	30.6	-	55	19†	- 16	3	56	2.27	-	1.56	1.4	3	12	5	14	U. S. Forest Service.	
Florence.	Pinal.	1,504	12	55.2	+ 4.6	80	30†	20	3	38	2.88	+ 1.86	1.12	0.0	5	11	11	9	Agent Ariz. Eastern R.R. Co.	
Fort Apache.	Navajo.	5,200	40	40.8	+ 5.0	70	30	4	3	51	2.74	+ 0.92	0.92	0.0	7	15	12	4	Post surgeon, U. S. A.	
Fort Huachuca.	do.	5,100	26	49.8	+ 5.3	77	29	22	2	39	0.68	- 0.50	0.38	0.0	4	16	10	5	Do.	
Fort Mohave.	Mohave.	604	-	-	-	-	-	-	-	-	-	-	-	-	12	12	10	w.	A. F. Duclos.	
Gila Bend.	Maricopa.	737	20	35.2	+ 1.5	79	31	25	3	43	0.34	- 0.40	0.22	0.0	3	14	10	7	Agent S. P. Co.	
Globe.	Gila.	3,525	10	47.5	+ 1.8	70	31	21	2†	33	3.10	+ 1.65	1.20	0.0	7	10	13	8	B. G. Fox, M. D.	
Grand Canyon.	Coconino.	6,866	8	31.0	-	49	8	- 6	3	33	2.30	-	1.25	4.0	9	8	12	11	Agent G. C. R. Co.	
Grand Canyon (1).	do.	3,076	3	44.2	-	64	20	19	1†	30	2.14	-	0.71	0.0	11	12	5	14	C. C. Spaulding.	
Granite Reef Dam.	Maricopa.	1,372	16	56.1	+ 3.0	79	17	24	3	37	1.37	+ 1.39	1.16	0.0	5	6	12	13	U. S. Reclamation Service.	
Greer.	Apache.	9,200	-	-	-	-	-	-	-	-	-	-	-	-	13	11	9	s.	Mrs. M. Butler.	
Heber.	Navajo.	6,633	-	-	-	-	-	-	-	-	-	-	-	-	8	8	7	s.	E. S. Perkins.	
Hereford.	Cochise.	4,180	2	-	-	-	-	-	-	-	-	-	-	-	10	11	9	s.	Agent E. P. & SW. Co.	
Holbrook.	Navajo.	5,069	22	41.0	+ 8.1	70	20†	0	3	51	0.72	- 0.03	0.39	T.	4	10	16	5	T. Larson.	
Indian Oasis.	Pima.	3,000	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	w.	J. Menager.	
Intake.	Gila.	2,230	4	-	-	-	-	-	-	-	-	-	-	-	15	8	8	s.	U. S. Reclamation Service.	
Jerome.	Yavapai.	4,743	14	45.6	+ 2.8	63	30	18	3	27	3.48	+ 1.59	1.24	0.0	4	10	13	8	Dr. L. A. Hawkins.	
Keams Canyon.	Navajo.	6,600	7	36.5	-	61	30	- 5	3	38	1.29	-	0.38	0.0	6	8	13	10	B. Persell.	
Kingman.	Mohave.	3,326																		

TABLE 1.—*Climatological data for January, 1911. District No. 9—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.								Sky.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	n.	n.	n.		
<i>Arizona—Contd.</i>																					
San Simon.	Cochise.	3,609	27	49.2	+ 4.6	79	30†	24	1	40	1.27	+ 0.83	1.06	0.0	3	11	14	6	sw.	Agent S. P. Co.	
Seligman.	Yavapai.	5,219	—	57.2	+ 2.3	80	10	28	3†	38	1.04	+ 0.70	1.00	0.0	2	12	15	4	se.	Lib., A., T. & S. F. R. R. Co.	
Sentinel.	Maricopa.	685	12	57.2	+ 2.3	80	10	28	3†	38	1.04	+ 0.70	1.00	0.0	4	12	8	11	se.	Agent S. P. Co.	
Show Low.	Navajo.	6,300	5	57.4	—	78	31	28	3	27	1.09	—	0.67	0.0	4	12	8	11	se.	Miss Z. Hall.	
Silverbell.	Pima.	2,650	5	57.4	—	78	31	28	3	27	1.09	—	0.67	0.0	4	12	8	11	n.	Imperial Copper Co.	
Snowflake.	Navajo.	5,644	1	37.9	—	69	30	-3	3	57	0.38	—	0.17	0.0	4	10	13	8	sw.	W. J. Flake.	
Supai.	Coconino.	3,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	sw.	A. H. Symons.	
Tempe.	Maricopa.	1,165	7	53.8	—	77	31	22	4	46	1.32	—	1.15	0.0	4	10	17	4	nw.	F. H. Simmons.	
Thatcher.	Graham.	2,800	8	47.4	—	80	31	12	4	47	1.13	—	0.36	0.0	6	14	16	1	nw.	Prof. J. H. Larson.	
Tombstone.	Cochise.	4,550	12	51.5	+ 3.9	82	31	15	2	37	0.97	+ 0.12	0.28	0.0	5	15	10	6	nw.	F. N. Walcott.	
Truxton.	Mohave.	4,197	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	nw.	G. J. Robertson.	
Tuba.	Coconino.	4,500	13	36.8	+ 3.5	63	29	0	3	33	0.87	+ 0.25	0.46	0.0	6	4	12	15	ne.	G. H. Kraus.	
Tucson.	Pima.	2,390	31	54.6	+ 4.7	83	31	16	4	50	1.31	- 0.51	0.60	0.0	5	4	23	4	nw.	J. M. Robe.	
Tucson (1).	do.	2,380	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	nw.	U. S. Coast & Geod. Survey.	
Tucson (2).	do.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	nw.	Agent S. P. Co.	
Vail.	do.	3,421	13	50.7	- 2.8	81	30	14	4	48	1.47	+ 0.86	0.62	0.0	4	15	12	4	s.	J. O. Carter.	
Walnut Grove.	Yavapai.	3,649	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	s.	Agent S. F., P. & P. Ry.	
Wickenburg.	Maricopa.	2,072	12	50.0	+ 3.9	71	21	18	3	44	2.30	+ 1.21	1.50	0.0	3	16	7	8	s.	Agent S. P. Co.	
Willcox.	Cochise.	4,164	29	48.3	+ 6.0	75	17†	12	3	50	1.35	+ 0.53	0.48	0.0	4	5	0	26	sw.	E. J. Nerdyke.	
Williams.	Coconino.	6,750	9	36.6	—	58	19	9	2	40	4.75	—	1.20	2.2	7	15	14	2	sw.	J. F. Bauer.	
Winslow.	Navajo.	4,853	6	42.4	—	72	20	1	4	52	0.54	—	0.42	0.0	4	16	7	8	sw.	E. L. Bartholomew.	
Yarnell.	Yavapai.	4,700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	sw.	U. S. Weather Bureau.	
Yuma.	Yuma.	141	30	56.9	+ 2.2	80	30	27	3	41	0.42	+ 0.01	0.37	0.0	2	17	8	6	n.	A. L. Crane.	
Yuma (1).	do.	150	4	54.0	—	77	31	22	2	45	0.43	—	0.41	0.0	3	12	11	8	n.	Do.	
Caliente.	Lincoln.	4,407	1	41.1	—	62	30	9	3	46	0.22	—	0.08	—	4	26	2	3	n.	Salt Lake Route.	
Las Vegas.	Clark.	2,033	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	n.	Do.	
Logan.	do.	1,700	4	44.7	—	77	26	18	3	38	0.70	—	0.27	0.0	4	9	4	18	n.	R. M. Filcher.	

TABLE 2.—*Daily precipitation for January, 1911. District No. 9, Colorado Valley.*

TABLE 2.—*Daily precipitation for January, 1911. District No. 9—Continued.*

Stations.	River basins.	Day of month.																													Total.				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
New Mexico.																																			
Alma.	Gila.										.50	.55	.05	.31				.20															2.23		
Aragon.	do.										.16	.50						.25															1.10		
Aztec.	San Juan.										.35	.68	.02	.12				.03	T.		T.	T.										1.02			
Black Rock.	Little Colorado.																																1.53		
Bloomfield.	San Juan.	T.	T.	T.														T.	.10		T.	.10										0.47			
Cambray.	Mimbres.																		.40														0.80		
Cliff.	Gila.																																0.65		
Columbus.	do.																	T.	.20														0.77		
Deming.	Mimbres.																		.07	.30													2.27		
Dulce.	San Juan.	T.									.57	.43	.02	.22	T.			.15	T.													1.55			
Fort Bayard.	Mimbres.																		.60	.15	.20												1.10		
Fort Wingate.	Little Colorado.										.20	.40	.10	.10																					
Fruitland.	San Juan.	T.																T.	T.															0.48	
Gage.	Mimbres.																		*	.50														1.06	
Gila Plant'g Sta.	do.										.04	.93	.27	.02						.01	T.	.10										1.94			
Hachita.	Gila.																		.31														0.65		
Haynes.	San Juan.																																		
Hermanas.	Gila.																																	0.64	
Lordsburg.	do.																																		
Luna.	Mimbres.	T.																	.35	T.	T.													1.32	
Mimbres.	Mimbres.																		1.15	.09	.24												2.03		
Pratt.	Gila.																		.15															0.80	
Putnam.	San Juan.																																		
Redrock.	Gila.																		.31	.26	.34												1.63		
Rodeo.	do.																		.05	.18	.03	T.											1.02		
Arizona.																																			
Allaire's Ranch.	Sonora.																	T.	.14	.18	.29												.96		
Aztec.	Gila.																		.70															.70	
Benson.	San Pedro.																		.05	.52	.05												.77		
Bisbee.	do.																		T.	.39	.33	.08											1.42		
Bonita.	Desert.																																		
Bowie.	Gila.																		.35		.72													1.57	
Buckeye.	do.																		1.10	.34														T. 1.44	
Camp Verde.	Verde.																																		
Canille.	San Pedro.																		.12	.52	.05												1.05		
Casa Grande.	Gila.																		.92	.40													1.32		
Casa Grande Ruins.	do.																		.83	.12	.03	.88											2.22		
Cave Creek.	Verde.																		1.50	.89	.44												2.97		
Chin Lee.	San Juan.																		.05	.25													.48		
Chierson's Mill.	Gila.																		1.17	.41	.17												4.55		
Clifton.	do.																		.35	.42	.02	.11											1.60		
Cline.	Salt.																																		
Cochise.	Desert.																																		35
Columbia.	Agua Fria.																		2.00	1.30	.15												4.26		
Congress.	Hassayampa.																		54	1.30	.02												2.32		
Courtland.	White.																		T.	1.07														1.59	
Do Cabezos.	Desert.																		1.96	.17	.21												2.97		
Douglas.	T.																		2.0	.20	.04												.98		
Dudleyville.	Gila.																		.74	.22	.02	.02	T.										1.43		
Fairbank.	San Pedro.																																	1.35	
Flagstaff.	Little Colorado.	T.																	.05	1.61	.79	.01										4.04			
Flagstaff (1).	do.																																		
Flagstaff (2).	do.																		.44	1.56		T.												2.27	
Florence.	Gila.																		1.12	.14	.50	.72										2.88			
Fort Apache.	Salt.																		.10	.92	.85	.20	T.	T.								2.74			
Fort Huachuca.	San Pedro.																		.25	.38	T.	T.												T. .68	
Fort Mohave.	Colorado.																																		
Gila Bend.	Gila.																																		
Globe.	Salt.																		1.20	.60	.75	.25													
Grand Canyon.	Colorado.	T.																	.06	1.25														2.30	
Grand Canyon (1).	do.																			.28	.02	.18	T.										2.14		
Granite Reef Dam.	Salt.																		1.16	.20	.66	.20										2.37			
Greer.	Little Colorado.																																		
Heber.	do.																																		
Hereford.	Gila.																																		
Holbrook.	Little Colorado.																		.05		.12	.07												.72	
Indian Oasis.	Desert.																																		
Intake.	Salt.																																		
Jerome.	Verde.																																		
Keams Canon.	Little Colorado.																																		
Kingman.	Colorado.																																		
Lewis Springs.	San Pedro.																																		

TABLE 2.—*Daily precipitation for January, 1911. District No. 9—Continued.*

## MONTHLY WEATHER REVIEW.

JANUARY, 1911

TABLE 3.—Maximum and minimum temperatures at selected stations for January, 1911. District No. 9, Colorado Valley.

Date.	Wyoming.				Colorado.								Utah.								New Mexico.							
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchesne.		Hite.		Moab.		Saint George.		Fort Bayard.		Fort Wingate.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.....	12	-2	20	-4	21	1	10	-1	27	4	16	1	41	6	24	-3	33	4	44	23	40	18	25	3				
2.....	6	-17	18	-10	16	-2	6	-31	8	-18	13	-5	45	-2	20	-8	30	-7	36	18	37	13	48	-5				
3.....	22	-2	20	-10	16	-3	4	-30	20	-20	15	-7	42	-1	18	-11	21	-6	44	13	34	4	30	-8				
4.....	34	17	30	-6	19	-8	7	-22	32	-8	37	15	40	0	23	-11	24	-5	52	16	41	13	42	0				
5.....	37	23	31	1	24	1	11	-17	37	5	44	26	40	5	30	-3	29	-3	52	17	52	15	50	9				
6.....	35	20	34	2	24	-3	10	-14	35	8	32	26	46	9	32	0	28	2	56	18	61	23	52	9				
7.....	42	23	37	7	23	-1	10	-11	38	0	34	25	47	13	30	3	32	3	55	18	62	24	53	14				
8.....	41	17	45	10	26	2	22	-9	41	10	35	25	46	11	33	0	22	7	56	18	60	33	55	21				
9.....	51	18	46	15	47	2	26	10	41	18	38	-----	45	9	41	3	35	4	58	19	62	31	54	22				
10.....	39	19	37	33	52	42	44	-1	44	34	49	-----	55	25	48	29	53	47	59	25	62	36	55	35				
11.....	36	6	42	31	49	37	33	30	43	22	44	21	56	29	59	0	55	39	58	30	52	42	55	33				
12.....	44	14	47	30	55	30	31	-4	46	22	46	4	55	25	50	15	57	39	62	28	59	39	63	34				
13.....	47	22	45	26	50	29	31	-2	47	34	38	-1	47	20	50	19	57	40	62	27	60	43	54	35				
14.....	41	24	45	24	45	32	26	3	43	34	35	1	42	25	48	22	65	44	52	30	62	35	64	23				
15.....	34	21	47	36	45	33	39	14	41	31	37	18	35	22	33	21	44	40	50	35	55	37	64	30				
16.....	34	17	49	29	43	33	45	20	38	31	36	29	35	25	39	30	47	36	58	43	64	36	65	38				
17.....	23	-8	33	29	45	33	35	14	37	27	34	8	44	14	35	29	47	34	58	36	61	42	65	32				
18.....	22	-10	45	22	46	32	25	13	42	20	38	4	37	15	39	29	48	35	58	29	60	30	66	23				
19.....	44	3	46	19	44	30	18	0	45	20	30	-10	35	20	37	17	50	29	58	31	61	27	66	22				
20.....	42	23	51	23	45	29	19	-6	47	35	41	11	42	28	45	22	55	30	57	28	67	32	67	31				
21.....	30	4	41	33	43	31	35	12	48	9	40	12	47	11	45	20	50	35	46	31	65	33	68	32				
22.....	22	-18	36	12	36	22	27	-11	40	-15	17	-16	40	12	44	16	50	20	54	26	63	37	63	28				
23.....	6	-30	44	23	35	22	12	-22	28	-12	20	-33	44	19	40	3	41	21	55	33	51	37	53	28				
24.....	15	-16	47	28	43	22	27	-8	49	11	36	-6	50	30	40	10	46	27	55	36	52	38	46	27				
25.....	40	13	35	32	45	33	32	5	45	38	45	27	52	31	38	28	54	38	57	42	60	38	48	28				
Mns.....	33.5	9.7	40.7	20.3	40.6	22.4	26.1	1.4	40.5	16.9	36.0	11.3b	45.6	18.2	39.5	14.6	46.2	26.4	54.7	30.1	57.9	31.5	54.7	24.3				

Date.	Arizona.														Logan, Nev.									
	Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michael.		San Carlos.		Tucson.		Yuma.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	41	26	23	12	37	12	26	4	56	18	54	28	30	17	33	-5	64	43	49	22	62	31	50	21
2.....	31	21	19	4	26	8	24	6	62	20	49	26	29	16	15	-10	45	17	48	19	59	31	44	24
3.....	41	17	27	-1	41	4	24	-6	60	14	54	25	39	8	32	-12	44	13	51	17	55	27	46	18
4.....	50	26	36	4	50	7	28	4	71	21	68	28	39	12	38	-5	53	14	66	16	67	39	57	27
5.....	57	26	42	8	62	11	33	11	75	25	66	34	55	17	45	3	56	17	69	30	69	44	60	25
6.....	60	33	47	8	58	12	42	16	72	25	70	33	50	16	46	4	60	17	75	25	73	41	63	23
7.....	61	37	52	10	59	12	44	11	72	25	68	36	60	19	50	7	59	17	72	28	68	35	60	22
8.....	61	38	46	14	60	15	49	17	72	28	68	30	38	19	50	22	62	19	75	32	74	33	60	24
9.....	63	40	43	20	58	18	46	21	75	40	68	38	67	20	46	20	65	21	74	33	72	39	55	26
10.....	57	49	40	33	42	28	44	19	73	38	58	50	45	41	46	40	57	39	73	50	63	56	55	28
11.....	57	47	42	33	47	46	40	29	72	45	64	55	49	40	45	36	59	40	63	55	63	49	54	28
12.....	56	48	44	33	55	44	42	19	67	37	67	56	49	33	49	34	64	49	69	51	65	47	58	20
13.....	60	48	45	28	49	42	40	22	71	37	68	53	59	29	49	36	67	48	68	45	68	43	58	23
14.....	67	40	43	26	61	20	42	20	68	34	64	47	54	31	51	37	64	49	69	43	54	46	55	29
15.....	68	43	48	33	61	30	41	24	74	37	68	48	55	23	55	32	60	45	75	44	61	49	53	26
16.....	64	42	48	34	60	30	40	27	66	35	73	54	51	40	54	36	68	41	72	45	69	48	63	29
17.....	59	48	48	26	60	30	44	26	71	38	66	49	52	28	51	31	69	45	70	43	71	48	65	20
18.....	60	39	46	20	56	26	44	25	73	38	69	42	57	24	51	32	68	35	69	45	74	47	58	32
19.....	60	26	57	20	61	24	42	27	76	35	72	44	65	25	59	22	66	34	74	39	75	45	55	33
20.....	67	39	52	23	62	23	44	26	75	35	71	43	61	28	56	23	67	30	77	38	73	43	58	30
21.....	64	48	38	30	67	26	44	28	76	38	63	44	61	25	47	33	70	31	76	42	72	43	53	34
22.....	56	44	40	24	60	33	44	26	73	36	70	43	58	26	44	28	64	37	70	47	68	50	57	26
23.....	57	44	47	28	49	37	44	27	73	35	72	52</												